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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,567	08/21/2007	Harald Groeger	294227US0X PCT	1637

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1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

POPA, ILEANA

ART UNIT	PAPER NUMBER
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1633

NOTIFICATION DATE	DELIVERY MODE
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04/28/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Advisory Action Before the Filing of an Appeal Brief	Application No. 10/593,567	Applicant(s) GROEGER ET AL.	
	Examiner ILEANA POPA	Art Unit 1633	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 28 March 2011 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 5 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: 1-16.
 Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
 12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____.
 13. ☒ Other: see continuation sheet.

/Ileana Popa/
 Primary Examiner, Art Unit 1633

Claims 1-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5-8 and 10-13 of copending Application No. 12/205,371, in view of Hong (Biotechnol. Bioeng., 1986, 28: 1421-1431).

Claims 1-16 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2 and 4-7 of U.S. Patent No. 7,217,544, in view of both Hong and Yamamoto et al. (PGPUB 2002/0064847).

The applicant argues that the application claims do not recite a process which requires a total substrate input of more than 500mM, with the substrate being metered such that the stationary concentration of 2-ketocarboxylic acid is less than 500mM.

This is not found persuasive because the instant rejection is based on modifying the patent claims by using a fed-batch process.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galkin et al. (Appl. Environm. Microbiol., 1997, 63: 4651-4656), in view of each Yamamoto et al. (PGPUB 2002/0064847), Hong (Biotechnol. Bioeng., 1986, 28: 1421-1431), and Smith et al. (J. Biol. Chem., 1993, 268: 10746-10753).

The applicant argues that exchanging formate dehydrogenase for glucose dehydrogenase would not have been obvious because the enzymes and products involved in the process disclosed in Galkin are completely different from the substrates, enzymes and products described in Hong and Yamamoto.

This is not found persuasive. The fact that Galkin teaches conversion of 2-keto acids and Yamamoto teaches secondary alcohol dehydrogenase is irrelevant. Galkin teaches of 2-keto acids conversion via regenerating NADH by using formate dehydrogenase. Yamamoto teaches that formate and glucose dehydrogenases are equivalent in their capacity to regenerate NADH (see paragraph 0046). Thus, replacing one with the other would have been obvious to one of skill in the art. Apart from an argument, the applicant did not provide any evidence to the contrary. For the same reasons, the argument that one of skill in the art would not have expected to be reasonably successful in exchanging formate dehydrogenase for glucose dehydrogenase is not found persuasive.

The applicant argues that the examiner's statements of optimization are merely unsupported allegations that are not based on objective evidence or acceptable scientific reasoning.

This is just an argument not supported by any evidence. The scientific reasoning is provided by Hong. For the same reason, the argument that there are no teachings in the cited art that the substrate input should be more than 500 mM is not found persuasive.

The argument that Galkin teaches away from the claimed invention is not found persuasive because it is related to Galkin alone. The rejection is not based on a batch process. Rather, the rejection is based on modifying Galkin by replacing the batch process with a fed-batch process. One of skill in the art would have known that the limitations in a batch process do not apply to a fed-batch process. Apart from an argument, the applicant did not provide any evidence to the contrary.